

**Patent**  
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## **APPLICATION FOR LETTERS PATENT**

**UNITED STATES OF AMERICA**

Be it known that We, **Lisa D. McCULLAR** of 1480 Parks Mill Road, Greensboro, Georgia 30642 and **Margaret A. JOHNSON** of 58 Deerfield Road, Covington, Georgia 30014, both citizens of the United States, have invented certain new and useful improvements in a

## **POST-SURGICAL GARMENT WITH DRAIN-RETAINING POCKETS**

of which the following is a specification.

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## POST-SURGICAL GARMENT WITH DRAIN-RETAINING POCKETS

### Cross-Reference to Related Application

[0001] This application claims the benefit of U.S. Provisional Patent Application Serial No. 60/460,136, filed April 3, 2003, which application is incorporated herein by reference in its entirety for all purposes.

### Technical Field

[0002] The present invention relates generally to the field of post-surgical garments, and more particularly to a unisex pocketed garment to be worn after surgery. Three example articles of clothing are described, which have been designed to fit the needs of a patient having had surgery to the head, neck, face, chest, back, side, abdomen, or the extremities.

### Background of the Invention

[0003] Numerous surgeries are performed each day with the patient exiting the operating room with one or more drains, such as a Jackson-Pratt closed drain or any of a variety of drain systems, which are inserted into the body to remove excess fluid from the surgical site. The drain is connected to tubing exiting the body and connecting to a bulb or other collection device, which is typically located outside the body. This bulb or collection device "hangs" on the end of the tubing. In the past, the tubing and collection device were typically taped to the patient's skin. The tape irritated the patient's skin and pulled on the skin at the point where the tubing was inserted or stitched to the skin. Alternately, the tubing was pinned to the clothing or hospital gown with a large safety pin. However, such an arrangement is quite inadequate as the collection device tended to dangle against the patient's body with each movement. To prevent the collection device from dangling, some patients have even pinned the tubing or collection device to a conventional belt, one that is normally used with their outer wear.

[0004] In an attempt to overcome the shortcomings of previous post-surgical garments, a bra-like garment was created with a pouch (to contain a collection device or the like) attached near the base of the garment. However, this garment has its own shortcomings. First, the bra-like garment fits closely to the body, much like a bra. The form fit of the garment could cause some patients additional discomfort to the wound or area of the incision. Moreover, even though the bra-like garment is feasible for patients who had breast or chest surgery, it is quite infeasible for those having surgery on other areas of the body because the pouch could only be secured to the garment at a point located beneath the patient's breastbone. Additionally, many men would be hesitant to wear a garment bound around the body in a bra-like fashion.

[0005] Other garments were created for retaining catheters and other types of tubing in place without vertical or horizontal movement of the patient. Such garments typically have multiple layers and adjustable straps for securing tubing and/or other monitoring devices. Garments such as these are quite cumbersome because the layers must be wrapped and adjusted before finally securing the tubes and other medical devices in place. If worn underneath outer clothing, such garments, with their many layers and straps and adjustments, would be uncomfortable for many patients because of the added layers and restrictiveness.

[0006] Thus, it can be seen that needs exist for an improved post-surgical garment. Needs further exist for an improved post-surgical garment that is versatile in that the garment can hold tubing and other medical devices secured at various locations about the body, that is comfortable for the patient to wear, and that can be worn underneath the patient's clothing. It is to an improved post-surgical garment meeting these and other needs that the present invention is primarily directed.

## Summary of the Invention

**[0007]** The present invention provides an improved post-surgical garment. In one aspect, the present invention is a loose-fitting garment to be worn on the body of a human or animal patient, the garment preferably having at least one front panel and at least one back panel. The garment preferably also has at least one opening formed along the intersection of the front panel and the back panel, and at least one pocket adjacent the at least one opening.

**[0008]** In another aspect, the present invention is a post-surgical system, preferably including a garment having at least one front panel, at least one back panel, at least one opening formed along the intersection of the front panel and the back panel, and at least one pocket adjacent the at least one opening. The system preferably also includes a medical device having a first portion for mounting in or on a body portion of a patient, a second portion for placement in the at least one pocket of the garment, and an intermediate portion for extension through the at least one opening in the garment to connect the first and second portions.

**[0009]** In another aspect, the present invention is a vest comprising a back panel having an inside face and an outside face, first and second front panels, each having an inside face and an outside face, and closures along ventral edges of the first and second front panels for securing the vest about a wearer. Preferably, the first and second front panels are attached to the back panel along lateral edges thereof, and define arm-holes between the back panel and the first and second front panels for allowing a wearer's arms to pass therethrough. Also preferably, an access opening is provided between the back panel and at least one of the front panels for passage of a medical device.

**[0010]** These and other aspects, features and advantages of the invention will be understood with reference to the drawing figures and detailed description herein, and will be realized by means of the various elements and combinations particularly pointed out in the appended claims. It is to be understood that both the foregoing general

description and the following brief description of the drawings and detailed description of the invention are exemplary and explanatory of preferred embodiments of the invention, and are not restrictive of the invention, as claimed.

### **Brief Description of the Drawings**

[0011] **FIGURE 1** shows a front exterior view of an example embodiment of a post-surgical garment according to an example form of the present invention.

[0012] **FIGURE 2** shows an interior view of the post-surgical garment of **Fig. 1**.

[0013] **FIGURE 3** shows a front view of another example embodiment of a post-surgical garment according to the present invention.

[0014] **FIGURE 4** shows a back view of the post-surgical garment of **Fig. 3**.

[0015] **FIGURE 5** shows a front view of the post-surgical garment of **Fig. 3**, with lower leg portions removed to form shorts.

### **Detailed Description of Example Embodiments**

[0016] The present invention may be understood more readily by reference to the following detailed description of the invention taken in connection with the accompanying drawing figures, which form a part of this disclosure. It is to be understood that this invention is not limited to the specific devices, methods, conditions or parameters described and/or shown herein, and that the terminology used herein is for the purpose of describing particular embodiments by way of example only and is not intended to be limiting of the claimed invention. Also, as used in the specification including the appended claims, the singular forms "a," "an," and "the" include the plural, and reference to a particular numerical value includes at least that particular value, unless the context clearly dictates otherwise. Ranges may be expressed herein as from "about" or "approximately" one particular value and/or to "about" or "approximately"

another particular value. When such a range is expressed, another embodiment includes from the one particular value and/or to the other particular value. Similarly, when values are expressed as approximations, by use of the antecedent "about," it will be understood that the particular value forms another embodiment.

**[0017]** **FIGURES 1 and 2** show a sleeveless unisex garment 10 according to an example embodiment of the present invention. The garment 10 is preferably loose fitting so as not to be binding and abrasive post surgically. The fabric comprising the garment 10 is preferably a natural and/or synthetic blend chosen for its softness or flexibility. Alternatively, the fabric can comprise paper, Tyvek or other disposable material. The fabric is also preferably water repellent and stain resistant. Although a sleeveless garment is depicted herein, it should be understood that garments with sleeves, including long sleeves and short sleeves, are within the scope of the present invention. Similarly, the garment 10 can be in the form of a hospital gown or the like.

**[0018]** The garment 10 is preferably designed with a back panel 11 and a front panel 12 that can be connected together with a pair of side seams 18 along the lateral edges. Preferably, the front panel 12 has two portions that are separable along a ventral front opening 13 complete with one or more (four are shown) hook and loop closures 14 spaced along the opening, or a continuous strip of hook and loop closure material extending substantially the entire length of the opening. However, other closures, including but not limited to snaps, ties, buttons, and zippers, can be employed as well. The garment 10 preferably includes one or more slits or openings 16 in the two lateral side seams 18 (i.e., where the front panel 12 and the back panel 11 meet) of the garment allowing not only the tubing 20 to be extended through from the body cavity but is also of a size so that the collection device, bulb, bag, and/or a monitoring device 22 can be easily passed through the slit 16 in the garment 10 and placed securely in a pocket in the garment. It should be noted that the slits 16 can have closures as well. As seen in **FIGURES 1 and 2**, this garment generally has the form of a vest.

**[0019]** These bound slits/openings 16 are preferably located in the side seams 18 just below the armhole 24, down the seam and just above the hemline 26. The one or more pockets of the garment are preferably strategically located for improved function and comfort. For example, one or more bellowed (expandable) chest pocket(s) 30 is/are preferably attached to the outside of the garment 10 between the armhole 24 and the center front closure 13 with one pocket 30a on the right front and one pocket 30b on the left front on the upper chest. These chest pockets 30 will serve for the deposit of a drain collection device if a patient exits surgery with a drain system in the head, face, or neck of the body. The bellowed construction of the pockets allow for the expansion of the pockets to accommodate the collection device or other medical device (such as a monitoring device).

**[0020]** One or more front pockets 32 are preferably stitched on both sides of the front closure 13 near the side seams 18. These pockets 32 are preferably double pockets, and preferably of a width and depth to contain more than one bulb, bag, collection apparatus, monitor or other medical device 22 worn by a patient. These pockets 32 are preferably placed just above the hemline 26 of the garment 10. The garment 10 preferably falls to just below the waist. The pockets 32 are appropriately located for containment of a device or devices resulting from surgery to the upper chest, the back, and the side of the body or the abdomen.

**[0021]** Two large interior pockets 34 are preferably located on the inside of the garment 10, just above the hemline 26 and on either side of the front closure 13 that is secured with hook and loop tab closures. These inside pockets 34 allow the patient to contain the tubing and the collection device on the inside of the garment 10. When these collection devices fill with fluid, the added weight is easily managed by securing the bulb, bag, or other collection apparatus discreetly hidden in the inside pocket 34 or one of the outside pockets of the loosely fitted garment 10, allowing a hospital gown, street clothes, or outer clothing to be worn concealing from the public the tubing and

other devices underneath. Although a garment with a plurality of pockets, some located on the interior of the garment and some located on the exterior of the garment has been described herein, it should be noted that garments having as few as one pocket are still within the scope of the invention. Also, the placement of the various pockets can be positioned at other locations on the garment 10. An open pleat is preferably located in the seam line at the hemline of the garment 10 to allow for added movement and flexibility.

**[0022]** **FIGURES 3-5** show another example embodiment of a post surgical garment 50 according to the present invention, in the form of loose-fitting leisure pants. These pants 50 are preferably sewn in the same water repellent and stain resistant blended fabric as the top 10 described above. Preferably, the pants 50 have a front panel 51 and a back panel 53 that can be connected together along side seams 54. The front panel 51 preferably has a plain band waistline, and the back panel 53 preferably has an elastic waistline. This construction is preferable because the pants 50 can accommodate a variety of body types, while remaining comfortable for the patients to wear.

**[0023]** The side seams 54 preferably extend from the waistline 53 to just above the knee 56 and are closed with a solid strip of hook and loop closure material. It should be understood that a plurality of smaller tabs of hook and loop closure material, that are spaced apart, can also be used. Additionally, the side seam 54 can be closed with other closures, including but not limited to snaps, ties, buttons, and zippers. Alternately, the side seams 54 can extend from just below the waistline 53 to the knee 56. In such an embodiment, the waistline can have a continuous elastic waistline or can have a drawstring, both of which also allow the pants to be worn by patients having differing body types.

**[0024]** Below the knee 56, the outside seams 54 are closed every few inches with hook and loop tabs down the outside seam to the ankles 58, or with a continuous strip of hook and loop closure material. The outer side seams 54 can thereby be

quickly and easily opened from the waist 53 to the ankle 58 in order to examine any surgical site below the waist, and to permit passage of a drain tube and/or other device through the garment. This closure also allows for examination of a catheter or drain system. A hip replacement or knee replacement could be easily examined in this manner as well.

**[0025]** The pants 50 of the present invention optionally include separable lower leg portions 60, so that the pants can be easily converted to above the knee shorts. Just above the knee 56, the garment 50 preferably includes a break-away attachment 62, such as a hook and loop fastener, zipper, snaps, buttons or the like, allowing the garment to be convertible between pants and shorts for improved comfort and functionality. Conversion from pants to shorts is accomplished by unattaching the hook and loop band 62 or other fastener(s) surrounding both the legs of the pants 50 and pulling the leg away, leaving an above the knee shorts garment as shown in FIG. 5. This design allows the patient the option of wearing this garment 50 as above the knee shorts (FIG. 5) or full-length pants (FIGS. 3 & 4). In alternate embodiments, the pants include full-length legs without the "break-away" construction, or are shorts without lower leg portions.

**[0026]** Just below the waist 53 on the front panel are preferably located one or more large bellowed hip pockets 70 that expanded can be used to hold a drain or a telemetry monitor 72. These pockets 70 are preferably closed with a hook and loop tab. Just above the knee-line are preferably one or more bellowed knee pockets 74 which again can be used to contain and conceal a drain, monitor or other required device 72. One or more hip pockets 76 is/are located on the back panel just below the waist 53 of the garment 50 on the upper right hip. The pants 50 optionally include one or more interior pockets 66, located for example on the inside of the front panel 51, above the knee 56, to hold a urinary catheter bag with the associated tubing concealed from external view.

[0027] In addition to post-surgical drains and associated tubing, the garment of the present invention is compatible with a number of other medical devices, such as pulse monitors, TENS-stimulators, injection ports, and access ports having a portion mounted in or on the patient's body and another portion that is carried externally of the patient's body and connected by intermediate tubing, wires or the like.

[0028] The garments 10, 50 can have a variety of shapes and sizes so as to accommodate children, adults, and larger adults, for example. Additionally, the present invention includes garments to be worn by animal patients after veterinary procedures, such as, for example, cats and dogs, and thus, the shape of the garment will be in a form to accommodate the animal. Additionally, it should be noted that the garments 10, 50 can have any number of pockets of various sizes and shapes, some of which may have closures to keep the pocket closed and some of which may be bellowed. Moreover, the pockets can be located on either the inside or on the outside of the garment.

[0029] While the invention has been described with reference to preferred and example embodiments, it will be understood by those skilled in the art that a variety of modifications, additions and deletions are within the scope of the invention, as defined by the following claims.